

# Swagelok® Compression Fitting Feedthroughs

Accu-Glass compression tube fitting feedthroughs are terminated with Swagelok® brand compression fittings. As their name implies, Swagelok® fittings produce a demountable, gas-tight, cold-formed (swaged) mechanical joint between a tube's OD and the ferrules housed inside each fitting. Tube finish, temper and wall thickness are all critical parameters for making reliable, gas and vacuum-tight seals. Please consult Swagelok® specifications and installation guidelines for best results.

These are general purpose, non-cryogenic, tube feedthroughs used for gas and/or fluid coolant delivery into high and ultrahigh vacuum systems.

AG fluid feedthroughs are available in single or dual tube configurations, with 1/8 or 1/4 inch tube diameters. Standard feedthroughs are offered with fittings TIG welded on both tube ends. However, an air-side bare-tube option is also available. This option can be ordered by appending a '.80' suffix to the end of any standard part number (note that price remains the same). Bare-tube terminations are often required when compression joints will not fit — or a demountable joint is just not allowed, and where direct welding to stainless steel supply-lines is the preferred solution.

Can't find what you need? Contact Accu-Glass Products to discuss other configuration options or solutions customized to your specific requirements.

### **Features**

- Swagelok® Compression Fittings
- 1/8 and 1/4 Inch tube sizes
- General purpose, non-cryogenic fluid use
- High temperature rated to 450°C
- Custom Solutions on Request

# **Specifications**

## Material

CF Flange / Tubes, Stainless Steel	304
Swagelok® Fittings, Stainless Steel 1	316

#### Vacuum Range

UHV, Ultrahigh vacuum	1x10 <sup>-13</sup> Torr
HV, High vacuum	1x10 <sup>-8</sup> Torr

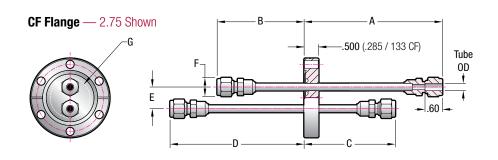
## Temperature Range 2,3

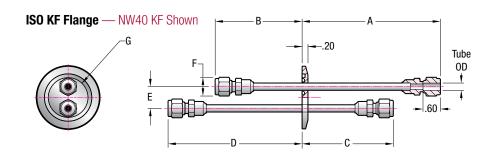
CF Flange Mount	450°C
ISO KF Flange Mount	150°C
Swagelok® Fitting	450°C

#### **Notes**

- Swagelok® fittings are designed for use with high-quality, fully annealed (Type 304, 304/304L, 316, 316/316L, 317, 317/317L, 321, 347) (seamless or welded and drawn) stainless steel hydraulic tubing, ASTM A269 and A213, or equivalent. Hardness not to exceed 90 HRB or 200 HV. Tubing to be free of scratches, suitable for bending and flaring. Consult Swagelok® for more information.
- Overall assembly ratings must be adjusted to that of its lowest rated component.
- This is a system bakeout temperature rating, without any fluid circulating in feedthrough tubes /lines.
  Consult Swagelok® for more information on high temperature and pressure ratings.
- § Unless specified otherwise, dimensional units in all sections of this catalog are expressed in inches.







**Swagelok® Compression Fittings¹** — Feedthroughs for water or non-cryogenic fluids

Flange Size	Number of Tubes	Tube OD	A	В	С	D	E	F	G	Part Number	Unit Price \$
<b>CF Flange</b> — 450°C² / UHV to 1x10 <sup>-10</sup> Torr											
133 CF	1	1/8	4.75	3.00	_	_	_	.510	_	113000	138
133 CF	1	1/4	4.75	3.00	_	_	_	.615	_	113001	138
275 CF	1	1/8	4.75	3.00	_	_	_	.510	_	113002	152
275 CF	1	1/4	4.75	3.00	_	_	_	.650	_	113003	152
275 CF	2	1/8	4.75	3.00	3.13	4.63	.750	.510	1.26	113004	215
275 CF	2	1/4	4.75	3.00	3.13	4.63	.750	.650	1.40	113005	215
<b>ISO KF Flange</b> — 150°C <sup>2</sup> / HV to 1x10 <sup>-8</sup> Torr											
NW16 KF	1	1/8	4.75	3.00	_	_	_	.510	_	113007	128
NW16 KF	1	1/4	4.75	3.00	_	_	_	.615	_	113008	128
NW25 KF	1	1/8	4.75	3.00	_	_	_	.510	_	113009	136
NW25 KF	1	1/4	4.75	3.00	_	_	_	.650	_	113010	136
NW40 KF	1	1/8	4.75	3.00	_	_	_	.510	_	113011	145
NW40 KF	1	1/4	4.75	3.00	_			.650		113012	145
NW40 KF	2	1/8	4.75	3.00	3.13	4.63	.750	.510	1.26	113013	205
NW40 KF	2	1/4	4.75	3.00	3.13	4.63	.750	.650	1.40	113014	205
NW50 KF	1	1/8	4.75	3.00	_	_	_	.510	_	113015	150
NW50 KF	1	1/4	4.75	3.00	_	_	_	.650	_	113016	150
NW50 KF	2	1/8	4.75	3.00	3.13	4.63	.750	.510	1.26	113017	210
NW50 KF	2	1/4	4.75	3.00	3.13	4.63	.750	.650	1.40	113018	210

<sup>1.</sup> For "bare tube(s)" on air-side, append ".80" to desired part number... price is the same with this option.



**113000 /** UHV Single, 1/8 Inch Tube Fluid Feedthrough on 1.33 CF



**113005 /** UHV Dual, 1/4 Inch Tube Fluid Feedthrough on 2.75 CF



**113007 /** HV Single, 1/8 Inch Tube Fluid Feedthrough on ISO KF16



Fluid Feedthrough on ISO KF40

<sup>2.</sup> This is a bakeout temperature rating, without fluid in feedthrough tubes / lines.